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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/607,017

06/27/2003

Yukio Kato

KAS-181

5592

7590

08/11/2004

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EXAMINER

THOMPSON, JEWEL VERGIE

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/607,017	KATO ET AL.	
	Examiner	Art Unit	
	Jewel V Thompson	2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 10 is/are rejected.
- 7) ☒ Claim(s) 4-9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/7/04 and 6/27/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

1. Acknowledgement is made of the Information Disclosure Statement filed June 27, 2003 and January 7, 2004, which has been made record of and placed in the file.

Priority

2. Acknowledgement is made of the Priority filed June 27, 2003, which has been made record of and placed in the file.

Pre-Amendment

3. Acknowledgement is made of the Pre-Amendment filed June 27, 2003, which has been made record of and placed in the file.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a) because they fail to show fig. 13 as described on page 8, 2nd paragraph, line 7 in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being

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amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Mueller et al (6,298,720).

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Regarding claim 1, Mueller et al teaches a gas-flow measuring instrument comprising: a main passage (8) having an intake gas passage for sucking gas (col. 7, lines 36-38); a bypass passage into which part of gas flowing through the main passage flows (fig. 1); a flow measuring element (12) disposed within the bypass passage for sensing a gas flow (fig. 1); and an electronic circuit electrically connected to the flow measuring element (col. 4, lines 7-10) wherein the bypass passage comprises a bypass-passage inlet opened to an upstream side in a gas mainstream direction of the intake gas passage (in the direction of arrow 25, fig. 1), a first passage arranged from the upstream-side of the intake gas passage to the downstream side and inclined relative to the mainstream direction (near 10, fig. 1), a second passage arranged from the downstream side to the upstream side and having the flow measuring element arranged therein (taking in part of the measuring element around to the outlet), a third passage connecting the first passage to the second passage in the downstream-side of the mainstream direction (part of the measuring element until the connection of the first passage), and a bypass-passage outlet (13) arranged in the second passage.

Regarding claim 3, Mueller et al teach the bypass passage further comprises a detour constructed by joining the third passage to the first passage and a detour constructed by joining the third passage to the second passage, and wherein an outside contour wall of the bypass passage of at least one of the both detours is continuously curved (fig. 1).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller et al in view of Aoi et al (5,942,683).

Regarding claim 2, Mueller et al fails to teach the flow measuring element comprising a heating resistor, the temperature sensing resistor, and the temperature sensor are arranged in the second passage. Aoi et al teaches an apparatus for measuring gas flow rate comprising a flow-rate detection element (15) comprising thermometers (19 and 20 and a heater (18). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to have used the flow rate detection apparatus of Aoi et al in the device of Mueller et al for the purpose of detecting the rate of flow so as to determine any malfunction in the engine.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller et al in view of Wakeman et al (4,571,996)

Regarding claim 10, Mueller et al fails to teach a venturi arranged in between the vicinity of a junctional region between the second passage and the third passage and the vicinity of the flow -measuring element. Wakemann et al teaches a venturi insert (18). It would have been obvious to one of ordinary skill in the art at the time that

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the invention was made to have used the venturi insert of Wakemann et al in the device of Mueller et al for the purpose of smoothing out the flow so that there will be a more accurate measurement.

Allowable Subject Matter

8. Claims 4-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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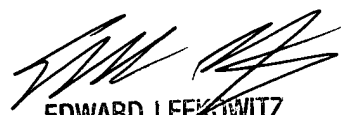
Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jewel V Thompson whose telephone number is 571-272-2189. The examiner can normally be reached on 7-4:30, off alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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